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REMARKS

The Final Office Action mailed October 22, 2003 has been received and carefully reviewed. Claims 1-49 are pending in the application. Claims 1, 12, 25, 36 and 47 have been amended.

In paragraph 1 on page two of the Office Action, claims 1-11 and 36-49 were rejected under 35 U.S.C. §102(b) as being anticipated by Dierke (U.S. Patent No. 5,854,757). In paragraph 2 on page two of the Office Action, claims 12-35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Dierke. In paragraph 3 on page three of the Office Action, claims 1-49 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Pineda (U.S. Patent No. 5,701,263) in view of Mattela et al. (U.S. Patent No. 5,781,239).

Applicants respectfully traverse the rejections, but in the interest of expediting prosecution have amended the claims. Applicants respectfully submit that Dierke, Pineda and Mattela, alone or in combination, fail to disclose, teach or suggest Applicants invention. Applicants' invention, as recited in independent claims 1, 12, 25, 36 and 47, requires arranging discrete cosine transform equations into collections, wherein at least one collection includes at least two discrete transform equations, and wherein the at least two discrete transform equations includes at least two discrete cosine transform constants. The discrete cosine transform equations in a collection are scaled by dividing each of the discrete cosine transform constants in the collection by one discrete cosine transform constant from the collection. Then, each of the scaled discrete cosine transform constants are represented with sums of powers-of-2, wherein the sums of powers-of-2 is calculated to approximate the scaled discrete cosine transform constants.

Dierke, Pineda and Mattela, alone or in combination, fail to at least suggest arranging discrete cosine transform equations into collections, wherein at least one collection includes at least two discrete transform equations, and wherein the at least two discrete transform equations includes at least two discrete cosine transform constants. Dierke, Pineda and Mattela show a collection of equations, but fail to show arranging equations into collections.

Dierke, Pineda and Mattela, alone or in combination, also fail to at least suggest that the discrete cosine transform equations in a collection are scaled by dividing each of the discrete cosine transform constants in the collection by one discrete cosine transform constant from the collection.

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Dierke, Pineda and Mattela, alone or in combination, also fail to at least suggest that each of the scaled discrete cosine transform constants are represented with sums of powers-of-2, wherein the sums of powers-of-2 is calculated to approximate the scaled discrete cosine transform constants. Applicant maintains that Dierke merely discloses that each row is scaled with its own scaling factor. Pineda merely shows the calculation of a transform matrix. Mattela does not show representing scaled coefficients as sums of powers-of-2, wherein the sums of powers-of-2 are calculated to approximate the scaled discrete cosine transform constants. Rather, Mattela merely shows that P matrix constants that are represented as at most six ones in a respective bit representation. The P matrix constants are truncated until at most six ones in a respective bit representation. Thus, Mattela does not suggest sums of powers-of-2 are calculated to approximate the scaled discrete cosine transform constants.

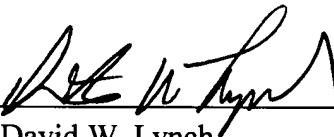Accordingly, claims 1, 12, 25, 36 and 47 are patentable over the Dierke, Pineda and Mattela.

Because claims 2-11, 13-24, 26-35, 37-46, and 48-49, which depend directly or indirectly from claim 1, 12, 25, 36 and 47 respectively, and include the features recited in the independent claims as well as additional features, Applicant respectfully submits that claims 2-11, 13-24, 26-35, 37-46, and 48-49 are also patentably distinct over the cited references. Nevertheless, Applicants are not conceding the correctness of the Office Action's rejection with respect to such dependent claims and reserve the right to make additional arguments if necessary.

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On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Attorney for Applicant, David W. Lynch, at 651-686-6633 Ext. 116.

Respectfully submitted,

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